## REMARKS

The October 2004 Office Action rejected claims 1-4, 9 and 19-20 under Section 103(a) as unpatentable over Odinak et al. (U.S. Pub. 2002/0173889, hereafter "Odinak") and in view of Turner et al. (U.S. Pub. 2003/0191650, hereafter "Turner"). Claims 5-8 were rejected under Section 103(a) as unpatentable over Odinak in view of Turner as applied to claims 1-4, and further in view of Tolopka (U.S. Patent 6,044,349, hereafter "Tolopka"). Claims 17-18 were rejected under Section 103(a) as unpatentable over Ballantyne et al. (U.S. Patent 5,867,821, hereafter "Ballantyne") in view of Tolopka, and further in view of Turner. Claims 10-16 were rejected under Section 103(a) as unpatentable over Odinak in view of Turner, as applied to claims 1-4, and further in view of Nguyen (U.S. Patent 6,401,157, hereafter "Nguyen"). In response, claims 17-20 have been canceled, and claim 1 was amended to clarify the invention, and the rejections are respectfully traversed.

Turning now to the references, Odinak relates to a vehicle device system that combines the functionalities of integrating vehicle controls, monitoring systems, location tracking and wireless communications into a device with module receptacles to receive insertable expansion modules that are replaceable and upgradeable for performing one of a plurality of telematic functions, and which expand the capabilities of an existing device. Odinak does not show the claimed invention, for example a motherboard having sockets to accept the replaceable and upgradeable modules, including at least one of: Central Processing Unit (CPU), graphics and sound controller, and system memory.

Turner relates to a server system that maintains a user profile of a particular end-user of consumer electronics network-enabled equipment and a data base of new technical features for this type of equipment. If there is a match between the user-profile and a new technical feature, and the user indicates to receive information about updates or sales offers, the user gets notified via the network of the option to obtain the feature. Turner also does not show the claimed invention, for example, a re-writeable Personal Universal Memory card capable of receiving and storing information associated with a user from a server.

Nguyen relates to a computer system having detection logic for detecting a hot-pluggable component module being added to the computer system. The detection logic determines when the hot-pluggable component module is fully inserted in a component connector, waits a predetermined time to insure that the hot-pluggable component module is properly seated in and

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Applicant respectfully submits that a *prima facie* case of obviousness has not been met because the Examiner's rejection fails on all three of the above requirements.

First, the Office Action did not establish that the prior art references teach or suggest all the claim limitations. M.P.E.P. § 2143.03. As mentioned above, Odinak does not show at least a motherboard having sockets to accept the replaceable and upgradeable modules, including at least one of: Central Processing Unit (CPU), graphics and sound controller, and system memory.

Odinak refers to a vehicle device that combines the functionality of integrating vehicle controls, monitoring systems, location tracking and wireless communications. In line 0006, Odinak refers to

> "...a vehicle device with module receptacles to receive insertable modules that are replaceable and upgradeable. Line 0025 illustrates the transferability of modules across devices. In line 0011 Odinak indicates that "In accordance with still further aspects of the invention, the modules are insertable into one or more devices remote from the vehicle, such as a PDA (Personal Digital Assistant), a data reader, into another vehicle device, or home computer."

While Odinak does refer to a PDA, which is a handheld mobile device, he does not specify that it has a motherboard capable of accepting major or core removable, replaceable, and upgradeable modules, including at least one of: the graphics and sound controller, system memory, or processor/Central Processing Unit (CPU). Odinak's replaceable and upgradeable modules are **supplementary expansion modules** that add to what a device already has and are only capable of telematic functions (See lines 0005-0006). Odinak fails to show the claimed removable, replaceable, and upgradeable modules including a removable, replaceable, upgradeable, and re-writeable Personal Universal Memory card capable of receiving and storing information associated with a user from a server; and a motherboard having sockets to accept the replaceable and upgradeable modules, wherein, based on the information associated with the user and on the user-determined hardware configuration of the device through user-selected replaceable and upgradeable modules, the server determines and downloads only applications that can be supported by the user-determined configuration of removable, replaceable, and upgradeable modules.

Second, Odinak refers to "module receptacles to receive insertable modules. (line 0006)" He does not refer to a motherboard into which the modules are directly plugged. Odinak's

device is not unlike a standard PDA with a receptacle for a memory stick, or a laptop with a receptacle for a PCMCIA card. Odinak relates to expansion slots for replaceable and upgradeable supplementary expansion modules and not to a motherboard onto which replaceable and upgradeable core modules can be plugged, including at least one of: the graphics and sound controller, system memory, CPU, and modem. Furthermore, Odinak does not show the use of his insertable modules to replace or upgrade a core module, including at least one of: the graphics and sound controller, system memory, CPU, and modem; at best, Odinak refers to insertable modules that supplement and expand the existing core module's capability.

Odinak's expansion modules are not the same as the Applicant's core modules required for operation of the computer, including at least one of: the graphics and sound controller, system memory, Central Processing Unit (CPU), which can be plugged directly into the motherboard of the device.

Thus, as to claim 1, Applicant notes that Odinak does not show replaceable and upgradeable core modules, and a motherboard having sockets to accept the replaceable and upgradeable modules.

As noted in the Summary Section of the instant case, since the major or core modules of the handheld computer are replaceable and upgradeable, the advantages are as follows:

> As indicated above, because of its removable, replaceable, and upgradeable component-based architecture, the cost of this device is manageable and therefore, the device itself is virtually disposable. This device also does not permanently house critical user information, and therefore is disposable for this reason as well, and is useable by multiple users in sequence. Critical user information is stored on a removable, replaceable, and upgradeable Personal Universal Memory Card (PUM Card), the size of a credit card that this device will accept. Third, three critical processes ensure the privacy and security of user information while a user is operating the device.
> Thus, the device is user-dependent and will be "slave" to the user whose Personal Universal Memory Card is inserted into it. The three processes that ensure the privacy and security of user information are the Biometric Identity Scanning Process for authenticating that the user is the owner of the PUM Card inserted into the device, the Private Communication Process for ensuring secure transactions with the servers and other devices, and the Smart-Erase Shutdown Process for ensuring that the contents of a PUM Card left in a device are erased so its contents are not accessible by hackers.

Note that the Applicant's invention renders the unit virtually disposable or replaceable because the unit's core modules that constitute its essence are replaceable and upgradeable. In the Applicant's invention, if the device malfunctions or is damaged, the device unit itself can be

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replaced and upgraded at a low cost; if one or more core modules are damaged or malfunction, they can be replaced at a lower cost than purchasing a new unit. Odinak's invention extends the life cycle of a unit or device by inserting supplementary expansion modules that add to already existing core modules in the device. Odinak's device is not expendable. If the device malfunctions or is damaged, the cost of replacing or upgrading the device is not avoided; if any one of the core modules is damaged or malfunctions, the entire device, including all of its core modules, will need to be replaced at a higher cost than replacing a single core module.

Another advantage of the Applicant's invention is that the replaceable and upgradeable core modules allows a user to start with an affordable basic model that fits in his current budget and upgrade over time at a lesser expense than purchasing a new device with more capabilities. This would be particularly useful in countries where affordability of technology is a barrier to its prevalent use. Because the basic models would be more affordable and capable of being upgraded through replaceable and upgradeable core modules, devices could be rented to users at a range of prices based on the user selecting replaceable and upgradeable core modules to customize the unit's capabilities to their needs. In Odinak a unit is purchased as is, and replaceable and upgradeable supplementary expansion modules are used to expand the unit's capabilities, and to extend the unit's life cycle for as long as the unit itself is functional.

In line 0004, Odinak teaches:

"Although the telematic unit produces acceptable results, the technology of the unit fails to provide consumers with an ability to extend the life cycle or shelf life of the unit....Ultimately, consumers must pay the higher costs of upgrading and implementing newer technology advances. Thus, vehicle owners would have to purchase newer units that contain improved or advanced features and must accordingly absorb the cost of removing the old unit and installing the improved unit. In light of these problems, there is a need for a modular telematic unit that is easily upgradeable to reduce the various burdens of upgrading that are placed on the vehicle owner."

Odinak uses a conventional handheld computer as a telematic vehicle device with expansion slots that extend the life cycle of the unit. Applying Odinak, one skilled in the art would have arrived at a handheld system with a pre-configured core capability with the expansion slots designed to supplement, but not replace, the preconfigured core capability. The combination is still a conventional handheld computer with expansion slots, not a replaceable shell whose capabilities can be customized by the user who can select replaceable and

upgradeable core modules such as a processor, graphics controller, and sound controller, for example, which in combination yield a specific system configuration that eliminates the need to carry multiple expansion modules.

In Odinak, the components, such as processors and graphics controller and sound controllers, are soldered into the motherboard and the functionality and configuration are predetermined in advance. Odinak's device's capabilities are expandable through replaceable and upgradeable expansion modules, but the device itself is not upgradeable by insertable expansion modules. Odinak simply does not show the replaceable and upgradeable core modules, including at least one of: a graphics and sound controller, system memory, CPU, modem, and a motherboard having sockets to accept the replaceable and upgradeable modules to upgrade a device.

Further, because Odinak does not show "a motherboard having sockets to accept the replaceable, upgradeable modules", Odinak cannot render claim 1 and any of the dependent claims obvious. Withdrawal of the rejection is requested.

The Office Action indicates that

"Odinak does not specifically teach the information is "associated with a user from a server" or the sockets accept the module is based on "the information associated with the user and on the user-determined hardware configuration of the device through user-selected replaceable, and upgradeable modules, the server downloads only applications that can be supported by the user-determined configuration of removable, replaceable, and upgradeable modules".

"However, Turner teaches the information is "associated with a user from a server" (See Page 1, [0007] wherein Turner's user profile is stored in the server to establishing user equipment through user's registration or interaction with the server is equivalent to Applicant's the information is associated with a user from a server); and the sockets accept the module is based on "the information associated with the user in the user-determined hardware configuration of the device through user-selected replaceable, and upgradeable modules, the server downloads only applications that can be supported by the user-determined configuration of removable, replaceable, and upgradeable modules" (See Page 1, [0006]-[0007] and Page 2, [0015]..."

In lines 0006-0007, and 0015 Turner indicates that a user profile must be established on the network for the user to take advantage of offerings. In other words, the user is dependent on the existence of a profile on the network to avail himself of the upgrades for the device. In the Applicant's method, the user profile does not have to reside on the network server; it can reside in the user's Personal Universal Memory card. This is a key feature of the Applicant's method

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that ensure the user's privacy. While Turner's method uses the user's preferences stored with the user identity profile in the server to determine what information to send to the user's device, the Applicant's method ensures the privacy of the user by allowing the user to "pull" user-preferred information from the server without sharing identity information. The Applicant's Private Communication Process for Pulling and Pushing Information, shown in Figures 4A and 4B, and the Applicant's Configuration-Dependent Download Process in Figure 2 allow the user to perform the same transactions Turner allows without having to register on remote server belonging to a vendor.

As noted on page 17, lines 12-23 of the Description section of the instant case,

"The device can be used to "pull" information from a server or other device or "push" information to a server or other device over the local network or over the Internet. The process that governs information sharing from the device is called The Private Communication Process. The Private Communication Process For "Pulling" Information uses codes to identify specific kinds of information. This process is described in Figure 4A."

"The Private Communication Process For "Pulling" Information is applicable, for example, when the user wants to see advertisements relevant to his shopping list. When the user enters his shopping list (step 402A), each item is coded in a standardized manner, for example, shirts will have a specific code. The codes are sent to the server when the user presses the "SEND" button (step 404A). If a banner advertisement with a matching code for shirts is found on the server, that banner is "pulled" by the device and **(See Description section of the instant case, Page 18, lines 1-15)** displayed for the user (step 406A). At this point, the user can access more information by clicking on the banner ad (step 408A). By using the matching-code process, the user's privacy is protected because no personal information is shared about the user, and at the same time, the user is allowed to customize his shopping experience."

"The Private Communication Process For "Pushing" Information is typically used when conducting a transaction to pay for a product or service online, or when interacting with an ATM machine, or some other device. The Private Communication Process For Online Payments is described in Figure 4B. The user accesses the Internet by pressing the "INTERNET" button (step 402B). He navigates to a transaction site such as www.paypal.com (step 404B) and follows the site's payment procedure (step 406B). After specifying how much is to be paid, to whom, and from what account, the user is asked to authenticate that he is the owner of the PUM Card in the device by using the Biometric Identity Scanner (step 408B). Once authenticated, the user is asked to provide his password as permission to "push" personal information to a vendor from whom a product or service is being purchased (step 410B)."

**(See Description section of the instant case, Page 15, lines 11-23)** "The Configuration-Dependent Download Process 200 is executed when the device is powered on. First, the user presses the on/off button (step 202). Next, the process 200 requests the users to use the Biometric Identity Scanner to authenticate his ownership of the PUM Card in device (step 204). In step 206, the Biometric Identity Scanner checks for a match between the scanned image and the one stored on the PUM Card. If the scan does not match what is on the PUM Card, the user is asked to register (step 208). If a match is found, and the user's preferences indicate that preferred applications should be downloaded on startup, the device will send a "packet" of information to the local server including the device hardware configuration specifications, and the codes identifying user-preferred applications (step 210). The local server will look for applications whose codes match the codes for user-preferred applications; It will then see if the hardware specification requirements for these applications match the hardware configuration of the device. When the codes and (Applicant's document: Page 16, lines 1-7) configuration requirements match, the server will return only the codes for applications that the device's hardware configuration will support (step 212). In step 214, the device informs the user if some applications cannot be supported, and gives the user options to abort the download or to select from among the applications the device will support. If the user opts to download applications, then the device commences the download process (step 216). If the user chooses to abort the download process, the user is given access to the main screen where he can select other options (step 218)."

As demonstrated with the Applicant's methods, it is unnecessary to "push" information to a user as Turner requires using the information on the personal profile of a user stored on a remote server to match information with the user's interests. The same can be accomplished with a "pull" method advocated by the Applicant, in which the user sends user preferences without identity information to a remote server and receives information that matches the codes of user preferences sent to the server. Turner's push method would not lead a person having ordinary skill in the arts to produce the Applicant's invention.

While it is unnecessary to store a profile on a remote serve to perform the transactions that Turner allows, a user may still desire to retain a backup of the profile information stored on his Personal Universal Memory (PUM) card and may want the option to update his PUM card remotely. In such a case, he may want to store his profile on a server. However, the purpose of storing the profile is not because it is required for transaction like those Turner allows. It is to allow a user to update his PUM card, as shown in the Process for Updating the PUM Card (see Figure 5).

As noted on page 18, lines 20-23 of the Description section of the instant case,

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"With respect to the"UPDATE" button 8, pressing this button causes the device to execute communication with the remote servers through the local server and to download the personal profile and preference settings for the user to the PUM card on the wireless device. This process is illustrated in Figure 5."

**(See Description section of the instant case, Page 19, lines 1-6)** "First, the user requests the update by pressing an "UPDATE" button (step 502). Next, the user is asked to authenticate that he is the owner of the PUM Card in the device by using the Biometric Identity Scanner (step 504). In step 3, the device checks for a connection with the local server, and in response, the local server connects with the remote server behind a firewall (step 506). If the user authentication is successful, the PUM card is updated (step 508)."

Because Turner requires the user to register at the server and requires the user's profile to be stored at the server and because downloads to the device are dependent on the profile stored at the server, Turner does not indicate the Applicant's method whereby the user's profile is stored on the Personal Universal Memory card at the device and wherein based on the information associated with the user and on the user-determined hardware configuration of the device through user-selected replaceable and upgradeable modules, the server determines and downloads only applications that can be supported by the user-determined configuration of removable, replaceable, and upgradeable modules.

Further, because Odinak does not show "a motherboard having sockets to accept the replaceable and upgradeable modules", and because Turner does not show a method whereby the user's profile is stored on the Personal Universal Memory card at the device and "wherein based on the information associated with the user and on the user-determined hardware configuration of the device through user-selected replaceable and upgradeable modules, the server determines and downloads only applications that can be supported by the user-determined configuration of removable, replaceable, and upgradeable modules", Odinak and Turner cannot render claim 1 and any of the dependent claims obvious.

Moreover, as to the rejections based on Odinak, Turner and Nguyen, Nguyen's hot-pluggable component module board level rather than component level as Nguyen's module is inserted in a component connector. Because Nguyen's module is board level module, Nguyen's hot-pluggable component module, such as a memory module, may be used by the computer system as a replacement for a defective module, upgrade and/or addition without disturbing normal operation of the computer system. In contrast, since the processor of the claimed handheld device may be removed, this removal would require the handheld device to be turned

off. Hence, there is no suggestion to combine Odinak, Turner and Nguyen to arrive at the dependent claims the expand on the claimed motherboard having sockets to accept the replaceable, and upgradeable modules, including at least one of: Central Processing Unit (CPU), graphics and sound controller, and system memory, wherein, based on the information associated with the user and on the user-determined hardware configuration of the device through user-selected replaceable, and upgradeable modules, the server determines and downloads only applications that can be supported by the user-determined configuration of removable, replaceable, and upgradeable modules. Withdrawal of the rejection based on Odinak, Turner and Nguyen is requested.

Odinak's invention is directed at expanding a device's capabilities using replaceable and upgradeable expansion modules; the Applicant's invention cannot be derived from this reference, therefore, the Office Action failed to identify a reasonably successful modification to Odinak's teaching to arrive at the claimed method for a handheld device with replaceable and upgradeable core modules including at least one of: the graphics and sound controller, system memory, CPU, modem; and a motherboard having sockets to accept the replaceable and upgradeable core modules. Hence claim 1 and those dependent therefrom are patentable over the prior art.

Moreover, there is no suggestion or motivation, either in the cited references or in the knowledge generally available to one of ordinary skill in the art, to modify Odinak in view of Turner to produce the claimed invention to arrive at a handheld device with a removable, replaceable, and upgradeable modules including a removable, replaceable, upgradeable, and re-writeable Personal Universal Memory card capable of receiving and storing information associated with a user from a server; and a motherboard having sockets to accept the replaceable and upgradeable modules, including one of: Central Processing Unit (CPU), graphics and sound controller, and system memory, wherein, based on the information associated with the user and on the user-determined hardware configuration of the device through user-selected replaceable and upgradeable modules, the server determines and downloads only applications that can be supported by the user-determined configuration of removable, replaceable, and upgradeable modules.

Additionally, the Examiner has not established that there is a reasonable expectation of success for the modification. Odinak's motherboard does not have sockets to accept the replaceable and upgradeable modules, including one of: Central Processing Unit (CPU), graphics

and sound controller, and system memory. Turner does not suggest a method whereby the user's profile is stored on the Personal Universal Memory card at the device and a server that can communicate with Odinak's motherboard with sockets to accept the replaceable and upgradeable modules. including CPU, graphics and sound controller, and system memory, wherein, based on the information associated with the user and on the user-determined hardware configuration of the device through user-selected replaceable and upgradeable modules, the server determines and downloads only applications that can be supported by the user-determined configuration of removable. replaceable, and upgradeable modules. The combination of Odinak and Turner has been arrived at using impermissible hindsight.

In sum, the Office Action did not establish and support *prima facie* obviousness of independent claim 1 as required in *In re Rinehart*, 189 U.S.P.Q. 143 (CCPA 1976) because each of the three basic criteria was not met with (i) some suggestion or motivation to modify Odinak, (ii) a reasonable expectation of success, and (iii) teach or suggest all the claim limitations in Applicant's claim 1. Furthermore, no *apriori* knowledge existed to rationally derive claims 1 as required in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). Hence, claim 1 and those dependent therefrom, are patentable over the references.


## CONCLUSION


Applicant believes that the above discussion is fully responsive to all grounds of rejection set forth in the Office Action.

If for any reason the Examiner believes that a telephone conference would in any way expedite prosecution of the subject application, the Examiner is invited to telephone the Applicant at (312) 307-0239.

Respectfully submitted,

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